WHAT IS CLAIMED IS:

1. A package for protecting an integrated circuit device having an active side, said package comprising:

a substrate for mounting the integrated circuit device;

a plastic cap mounted on the substrate to form an enclosed space for the active side of the integrated circuit device;

a thermal bond formed between the substrate and the plastic cap to effectively seal the enclosed space so as to prevent the ingress of moisture or particulates.

2. The package as set forth in claim 1 wherein said plastic cap comprises a liquid crystal polymer.

3. The package as set forth in claim 1 wherein said plastic cap comprises an absorber material to resist the passage of radiant energy through the cap.

4. The package as set forth in claim 3 wherein said absorber material comprises carbon black filler.

5. The package as set forth in claim 1 wherein said plastic cap comprises a metal layer on an outer surface of the cap to provide radio frequency shielding of the integrated circuit device.

6. The package as set forth in claim 1 wherein said plastic cap comprises a transparent panel for the passage of optical signals to the integrated circuit device.

7. The package as set forth in claim 1 wherein said plastic cap comprises a port for the selective entry of materials into the package.

8. The package as set forth in claim 1 wherein said plastic cap comprises cooling fins for the dissipation of heat from the package.

9. The package as set forth in claim 1 further comprising an adhesive coating between the plastic cap and the substrate to bond the cap to the substrate.

10. The package as set forth in claim 1 wherein said thermal bond is located at a junction between the plastic cap and the substrate.

11. The package as set forth in claim 10 wherein said plastic cap comprises a metal coating at the junction between the cap and the substrate.

12. The package as set forth in claim 11 wherein said metal coating is nickel plating.

13. A package for protecting an integrated circuit device having an active side, said package comprising:

a plastic cap mounted on the integrated circuit device to form an enclosed space for the active side of the integrated circuit device;

a thermal bond formed between the integrated circuit device and the plastic cap to effectively seal the enclosed space so as to prevent the ingress of moisture or particulates.

14. The package as set forth in claim 13 wherein said plastic cap comprises a liquid crystal polymer.

15. The package as set forth in claim 13 wherein said plastic cap comprises an absorber material to resist the passage of radiant energy through the cap.

16. The package as set forth in claim 15 wherein said absorber material comprises carbon black filler.

17. The package as set forth in claim 13 wherein said plastic cap comprises a metal layer on an outer surface of the cap to provide radio frequency shielding of the integrated circuit device.

18. The package as set forth in claim 13 wherein said plastic cap comprises a transparent panel for the passage of optical signals to the integrated circuit device.

19. The package as set forth in claim 13 wherein said plastic cap comprises a port for the selective entry of materials into the package.

20. The package as set forth in claim 13 wherein said plastic cap comprises cooling fins for the dissipation of heat from the package.

21. The package as set forth in claim 13 further comprising an adhesive coating between the plastic cap and the substrate to mechanically attach the cap to the integrated circuit device.

22. The package as set forth in claim 13 wherein said thermal bond is located at a junction between the plastic cap and the integrated circuit device.

23. The package as set forth in claim 22 wherein said cap comprises a metal coating at the junction between the plastic cap and the integrated circuit device.

24. The package as set forth in claim 23 wherein said metal coating is nickel plating.

25. A package for protecting an integrated circuit device having an active side, said package comprising:

a substrate for mounting the integrated circuit device;

a cap mounted on the substrate to form an enclosed space for the active side of the integrated circuit device, the cap comprising a metal layer in contact with the substrate;

a thermal bond formed between the substrate and the cap to effectively seal the enclosed space so as to prevent the ingress of moisture or particulates.

26. The package as set forth in claim 25 wherein said cap comprises plastic.

27. The package as set forth in claim 25 wherein said cap comprises ceramic.

28. The package as set forth in claim 25 wherein said cap comprises glass.

29. The package as set forth in claim 25 wherein said metal layer comprises nickel.

30. The package as set forth in claim 25 wherein said metal layer comprises copper.

31. A package for protecting an integrated circuit device having an active side, said package comprising:

a cap mounted on the integrated circuit device to form an enclosed space for the active side of the integrated circuit device, the cap comprising a metal layer in contact with the substrate;

a thermal bond formed between the integrated circuit device and the cap to effectively seal the enclosed space so as to prevent the ingress of moisture or particulates.

32. The package as set forth in claim 31 wherein said cap comprises plastic.

33. The package as set forth in claim 31 wherein said cap comprises ceramic.

34. The package as set forth in claim 31 wherein said cap comprises glass.

35. The package as set forth in claim 31 wherein said metal layer comprises nickel.

36. The package as set forth in claim 31 wherein said metal layer comprises copper.

37. A process for forming a package for protecting an integrated circuit device mounted on a substrate comprising the steps of:

placing a cap in contact with the substrate such that said cap and said substrate form a junction and define an enclosed space for the integrated circuit device; and

applying thermal energy to the junction to form a bond between the cap and the substrate, said bond providing a near-hermetic seal for the enclosed space.

38. The process as set forth in claim 37 wherein said steps of applying thermal energy comprises using a laser to pass a beam of energy through the substrate to heat the junction.

39. The process as set forth in claim 38 wherein said beam of energy has a wavelength of approximately 800 nanometers to approximately 825 nanometers.

40. The process as set forth in claim 37 wherein said cap comprises a metal coating in contact with the substrate to form said junction, said step of applying thermal energy comprises using a laser to pass a beam of energy through the cap to heat the junction.

41. A process for forming a package for protecting an integrated circuit device comprising the steps of:

placing a cap in contact with the integrated circuit device such that said cap and said integrated circuit device form a junction and define an enclosed space for the integrated circuit device; and

applying thermal energy to the junction to form a bond between the cap and the integrated circuit device, said bond providing a near-hermetic seal for the enclosed space.

42. The process as set forth in claim 41 wherein said step of passing thermal energy comprises using a laser to pass a beam of energy through the integrated circuit device to heat the junction.

43. The process as set forth in claim 42 wherein said beam of energy has a wavelength of approximately 800 nanometers to approximately 825 nanometers.

44. The process as set forth in claim 41 wherein said cap comprises a metal coating in contact with the integrated circuit device to form said junction, said step of applying thermal energy comprises using a laser to pass a beam of energy through the cap to heat the junction.

45. A process for forming an integrated circuit device package, the process comprising the steps of:

fabricating an integrated circuit device wafer having an active side;

fabricating a grid of fusible material and placing the material on the integrated circuit device wafer;

fabricating a cap wafer and aligning said wafer for contact with the grid of fusible material;

placing said cap wafer in contact with said grid of fusible material;

passing thermal energy through the integrated circuit device wafer to heat the grid of fusible material and form a bond between the cap wafer and the integrated circuit device wafer; and

dicing the integrated circuit device wafer and cap wafer to form one or more individual integrated circuit device packages each having a near hermetically sealed enclosed space.